



## Original Research Article

## Evaluating the Need for Dedicated Medico-Legal Units in Indian Hospitals: A Stakeholder Perspective from General Hospital, Palanpur.

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| <b>Name of Author:</b><br><b>Dr. Kunjankumar Modi<sup>1</sup>, Dr. Jitendra Tanna<sup>2</sup>, Dr. Ritesh R. Bhabhor<sup>3</sup>.</b>                                                                                                                                                                                                                                                                                                                       | <b>Abstract:</b> <i>Introduction:</i> Medico-legal case (MLC) management is integral to healthcare and justice delivery. In India, a lack of structured medico-legal units (MLUs) often leads to inefficient documentation and coordination. <i>Aim:</i> To evaluate the need for dedicated MLUs in Indian hospitals based on stakeholder perspectives. <i>Methodology:</i> A cross-sectional survey of 42 healthcare providers and 7 administrators was conducted at General Hospital, Palanpur, using a structured questionnaire. Data were analysed descriptively. <i>Results:</i> Most respondents cited inadequate resources (72%) and overburdened staff (65%) as major issues; 60% reported documentation delays. Eighty-nine percent supported the creation of MLUs to improve documentation (85%) and coordination (90%). <i>Conclusion:</i> Stakeholders strongly support dedicated MLUs to improve medico-legal efficiency, but financial constraints and training needs must be addressed.<br><br><b>Keywords:</b> Medico-legal units, forensic medicine, hospital administration, India. |
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### INTRODUCTION

Medico-legal case (MLC) management represents an indispensable interface between medicine and law. Indian hospitals frequently handle cases involving accidents, assaults, suicides, and suspicious deaths where accurate documentation is crucial for both justice and professional accountability. Yet, the medico-legal process remains fragmented, largely because most hospitals lack structured medico-legal units (MLUs) staffed with trained personnel.

An MLU is a specialized cell within a hospital dedicated to documentation, evidence preservation, and coordination with legal authorities. International studies

have shown that such units improve documentation quality, reduce errors, and enhance communication between medical and investigative agencies (1, 4, 5). In India, medico-legal work is often an additional burden on clinicians without formal forensic training (2, 3).

Kumar and Sinha (2018) highlighted that incomplete records and delays often compromise the evidentiary value of reports (3). Patel and Verma (2019) observed that hospitals with MLUs resolved medico-legal disputes more efficiently (2). Globally, Chaudhary et al. (2020) and Anderson & Wada (2018) found that hospital-based forensic medicine units improve both patient care and evidentiary documentation (4, 8).

Recent Indian literature underlines the same need. Rani et al. (2024) reported that nearly one-third of emergency cases in tertiary hospitals are medico-legal (3, 12). Dilipkumar et al. (2024) stressed that “forensic specialist integration into clinical units is the need of the hour.” (2, 11) These findings justify evaluating stakeholder perspectives on establishing MLUs in Indian hospitals.

## MATERIALS AND METHODS

This descriptive cross-sectional study was conducted in October 2024 at General Hospital, Palanpur, Gujarat, a tertiary-level healthcare institution catering to both urban and rural populations. The hospital functions as a teaching centre under Banas Medical College & Research Institute, with an average of 100–150 medico-legal cases (MLCs) reported monthly.

### Study Design and Participants

The study adopted a cross-sectional observational design to obtain real-time data from stakeholders involved in medico-legal case handling. A total of 49 participants were enrolled, comprising 42 healthcare providers (medical officers, resident doctors, and staff nurses) and 7 hospital administrators (superintendents, advocate, and record supervisors).

All participants had a minimum of one year of experience handling MLCs or coordinating medico-legal documentation.

### Sampling and Data Collection Tool

Purposive sampling was used to ensure inclusion of staff actively engaged in medico-legal duties. A structured, pretested questionnaire was designed after literature review and expert validation by three senior forensic medicine faculty members. The questionnaire comprised:

- Section A: Demographic data and professional role.

## RESULTS

A total of 49 valid responses were analysed (response rate: 98%). Of these, 57% were doctors, 29% nursing staff, and 14% administrators. Mean professional experience among respondents was  $6.3 \pm 2.4$  years.

### Existing Challenges in Medico-Legal Case Management

All respondents reported inadequate staffing and infrastructure for MLC management. They noted the absence of dedicated medico-legal desks, poor record centralization, and lack of secure evidence storage areas. Sixty-five percent described excessive workload and overlapping clinical–legal duties as a persistent stress factor.

Qualitative themes revealed issues such as:

- Poor interdepartmental communication, particularly between casualty staff and police officers.
- Inconsistent medico-legal documentation, often due to untrained personnel.
- Delays in forwarding reports or samples, leading to procedural bottlenecks.

One administrator remarked: “There is no clear system for medico-legal paperwork; sometimes files go missing between departments.”

These findings are consistent with studies by Kumar and Sinha (2018) and Thomas & Prasad (2020), who documented similar administrative lapses across Indian public hospitals (3,10).

- Section B: Quantitative assessment of challenges, benefits, and barriers to MLC management using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

- Section C: Open-ended qualitative questions exploring perceptions and suggestions for improvement. The tool was pilot-tested on 10 respondents for clarity and reliability. Internal consistency was assessed using Cronbach’s alpha ( $\alpha = 0.86$ ), confirming strong reliability.

### Data Collection Procedure

Data were collected anonymously over a four-week period (November 2024) using printed and digital forms distributed through departmental heads. Participation was voluntary, and informed consent was obtained from all respondents. Confidentiality of responses was maintained throughout the study.

### Data Analysis

Quantitative data were entered into Microsoft Excel (version 2021) and analyzed using SPSS version 26.0 (IBM Corp., Armonk, NY, USA).

- Descriptive statistics (frequency, percentage, mean, and standard deviation) summarized quantitative responses.
- Thematic analysis was applied to qualitative responses to identify recurring issues and recommendations. Findings were then triangulated to derive integrated conclusions reflecting both numerical and narrative insights.

### Ethical Considerations

The study protocol was approved by the Institutional Ethics Committee of Banas Medical College & Research Institute (Ref: BMCRI/IEC(H)/APPROVAL/A1-/2024/9/26/1215). Participation was voluntary, and no identifying information was collected.

### Perceptions Regarding MLUs

Eighty-nine percent of respondents supported establishing a dedicated Medico-Legal Unit (MLU). The perceived benefits included:

- Streamlined documentation and registration (80%)
- Faster coordination with police and judiciary (90%)
- Improved evidence preservation and chain of custody (82%)
- Reduction in case-handling delays (85%)

A senior resident noted: “With a separate medico-legal cell, even night-shift cases could be handled without burdening emergency doctors.”

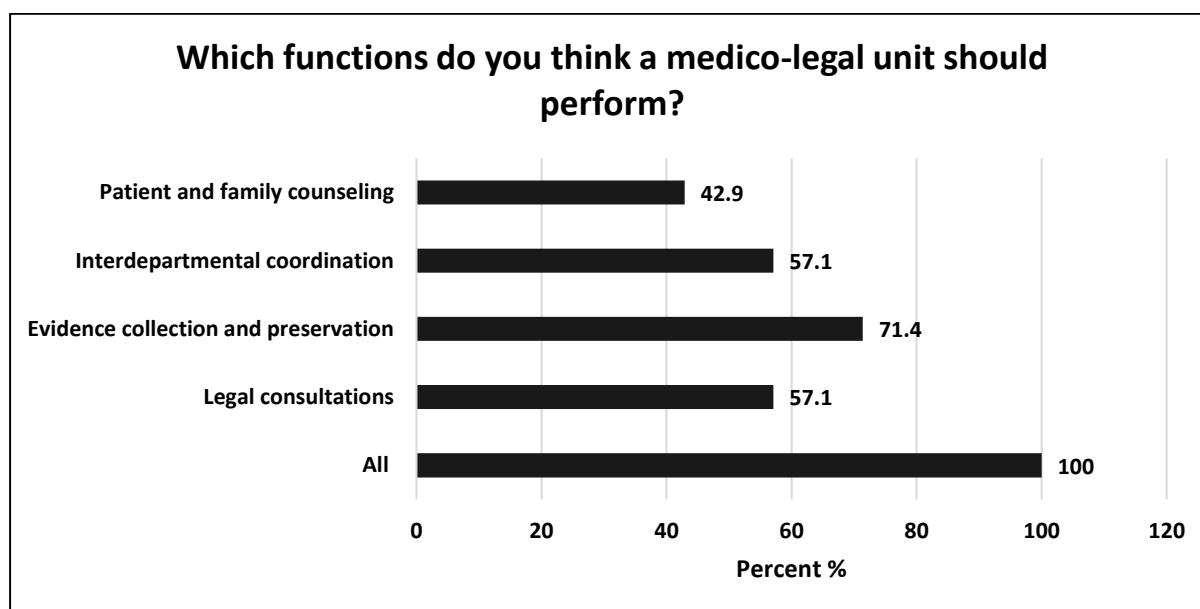
### Barriers to Implementation

Among reported barriers, financial constraints (57.1%) and insufficient training (85%) were predominant. Several participants cited lack of funds for infrastructure (secure record rooms, evidence lockers, trained data-entry staff). The shortage of skilled personnel familiar with medico-legal protocols was emphasized by both clinicians and administrators.

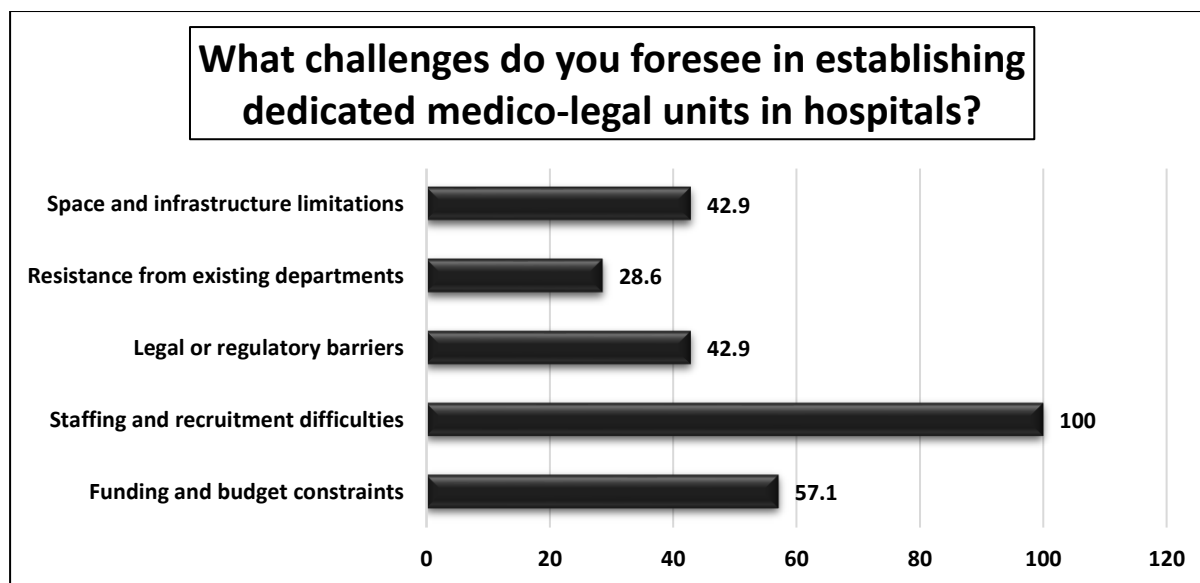
### Thematic Summary

Thematic analysis yielded three overarching categories:

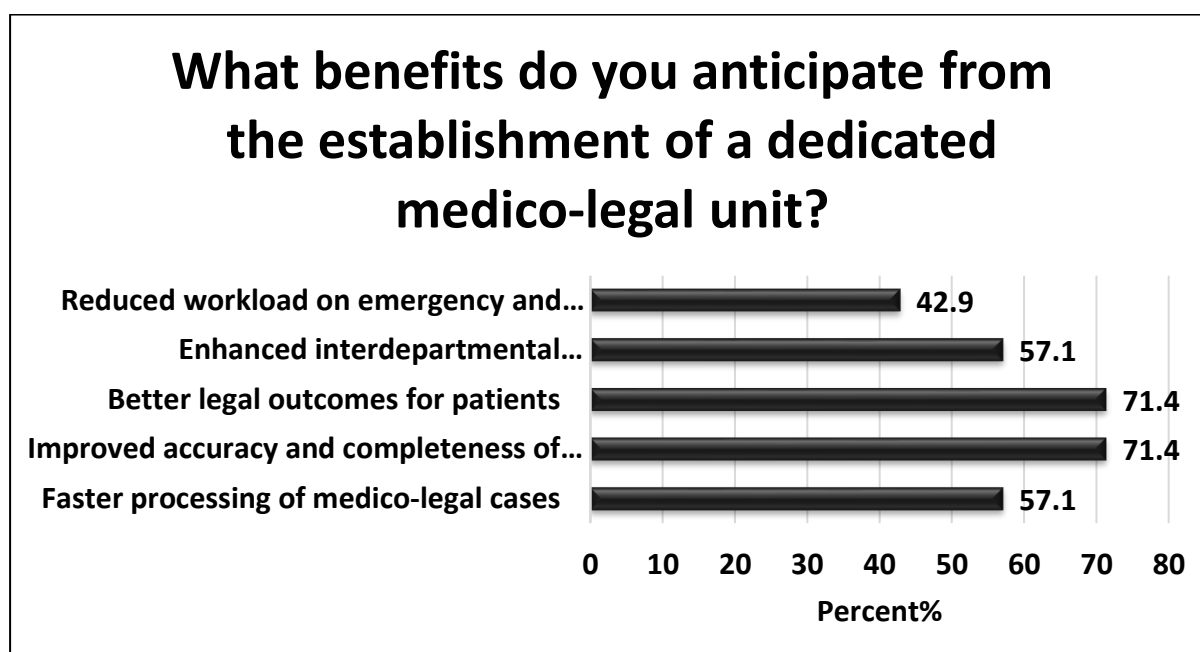
1. **Systemic gaps** — Lack of structure, training, and resources.
2. **Operational challenges** — Documentation errors, time delays, interdepartmental friction.
3. **Anticipated improvements** — Standardization, accountability, reduced workload with MLU implementation.



**Graph 1- Functions of Medico-legal unit.**



Graph 2- Challenges foreseen in establishing dedicated Medico-legal unit.



Graph 3- Anticipated benefits of a dedicated medico-legal unit

## How important is it to have specialized staff (e.g., forensic nurses, medico-legal officers) in these units? (%)



**Graph 4- Importance of Specialized staff in medico-legal units**

### DISCUSSION

The findings of this study underscore an urgent need for institutionalized medico-legal units within Indian hospitals. Stakeholders across all professional hierarchies expressed overwhelming support for MLUs, consistent with both Indian and global evidence (1–5, 7–9, 11, 12).

#### Comparison with Previous Studies

The positive perception observed in this study mirrors results by Singh & Gupta (2020) and Patel & Verma (2019), who reported improved documentation accuracy and legal compliance post-MLU implementation (1,2). Similarly, Yadav & Sharma (2021) found that hospitals with established MLUs experienced fewer medico-legal disputes and higher coordination efficiency (4). Chaudhary et al. (2020) demonstrated that hospital-based forensic medicine units not only enhanced the legal reliability of records but also improved ethical and professional standards of care (4,8).

#### Training and Capacity Building

The lack of trained personnel was a dominant barrier (85%). Bhushan & Patel (2020) and Mehta & Singh (2019) emphasized integrating medico-legal modules into undergraduate and postgraduate curricula to develop competency (6,7). Clinical forensic medicine training workshops could bridge this gap by familiarizing hospital staff with documentation procedures, evidence handling, and medico-legal ethics.

#### Policy and Administrative Implications

The study's findings provide actionable insights for policymakers and administrators.

- **Integration:** MLUs should be institutionalized within hospital structures, ideally co-located near the emergency department for immediate case registration.
- **Human Resource Allocation:** At least one dedicated forensic medical officer should supervise

medico-legal activities to ensure accuracy and timeliness.

- **Infrastructure:** Dedicated evidence lockers, digital record systems, and restricted-access storage rooms are essential.
- **Monitoring:** Regular medico-legal audits should be conducted to identify and rectify procedural gaps.

These recommendations align with global models. In the UK and Australia, clinical forensic medicine services are standardized parts of hospital systems, ensuring rapid, coordinated case management (8). India's growing medico-legal workload, reflected in Rani et al. (2024) and Nath et al. (2022), makes similar integration both urgent and feasible (1,12).

### CONCLUSION

Dedicated medico-legal units are essential to strengthen documentation accuracy, interdepartmental coordination, and justice delivery. The present study highlights overwhelming stakeholder support for MLUs despite identifiable barriers. Institutional and policy-level initiatives must prioritize their implementation across tertiary hospitals in India.

#### Recommendations

1. Integrate MLUs as mandatory components in tertiary hospitals.
2. Allocate specific budgets for medico-legal infrastructure.
3. Introduce periodic medico-legal training and CME programs.
4. Develop standardized national protocols for MLC documentation.
5. Conduct multicentric evaluations to assess MLU performance.

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